pigmentation which sometimes appear a long time after an apparently perfect result led Kienboeck to make the statement: "Hypertrichosis of women's faces should not be subjected to the modern Roentgotherapy."

The marked effect upon epithelial tissue is equally noticeable in growths; juvenile warts of the hands and the face disappear quickly; likewise papillomata have been treated successfully. Epitheliomata, cancroids and rodent ulcers are a well-known field of the rays, although the dose must be given several times, and must be increased sometimes to get a reaction of the second degree. After all experiences recurrences have been observed in less or at least not larger percentage than after operation, the method being painless and without danger, the cosmetic effect a comparatively very good one, and the rays can be applied on every place, even in the neighborhood of the eye, ear, nose and mouth, where surgical interference will cause a disfigurement; epitheliomata around the eye, with involvement of the conjunctiva and more or less destruction of the lids, must often be considered as inoperable. The Roentgen rays are here the method to be chosen.

More deeply seated carcinomata, subcutaneous nodules and glands, or metastases, can be influenced better with higher tubes and continued treatment. Perfect cures, however, are still rare, and are only possible in favorable cases; but the rays are of value before and after operation, especially after, to prevent recurrences; or in inoperable cases as a last hope with still better chances than any other means.

Similar results, which seem mainly favorable in combination with other methods, and some internal medication, like quinin or potassium iodid, can be expected in mycosis fungoides, actinomycosis, blastomycosis and even in leprous granulomata.

The same combined treatment is to be recommended in lupus erythematosus; besides the superficial forms of this disease, which can easily be removed by any means, the resistant varieties which until lately met a potent method only in Hollaender's quinin-iodid treatment, will show good results by adding the Roentgen rays. Although a certain saturation of the body with quinin seems practical, I found it valuable to apply the rays about 10 to 15 minutes after a 4 to 6 grain dose and immediately after painting the affected spot with iodin tincture.

Lupus vulgaris and tuberculous affections of the skin are the main field for Finsen's light therapy, which undoubtedly gives the best cosmetic results, and the least percentage of recurrences; hypertrophic, ulcerated and fungating forms generally react more promptly to the Roentgen rays. The ulcerated parts heal up, the hypertrophies shrink and become flatter, and the lupus nodules are more plainly visible in the paler and less infiltrated surroundings, more easily to diagnose and to treat. On account of the difficulties scars and pigmentations offer to the entrance of the chemical light rays, old cases, often treated by caustics, etc., are also better subjected to the X-ray. Likewise with the tuberculosis verrucosa cutis and similar forms.

Psoriasis, long-standing patches on the palms, usually offering very little chance to other treatment, may be removed by one or two doses of the first or less degree. Cases covering the whole body should only be treated when other therapeutic methods have failed. The impossibility of thorough protection of some organs and the general influences upon the body, the nature and consequences of which are not yet sufficiently cleared, should be borne in mind. In recent eruptions the rays are debarred like other irritants.

The results are good in parasitic affections of the skin, as in trichophytie, pityriasis rosea and versicolor, etc., but in the average case hardly superior to other methods. The same has to be said concerning acne and acne rosacea, while inveterated acne and acne necroticans can hardly be influenced more quickly and better by other methods than with the rays. I prefer, however, in these cases continued treatment with high tubes, avoiding reaction, which often causes new eruptions.

The highly recommended Roentgotherapy in eczema is of value in the moist varieties by applying small doses at a time, and is mainly indicated in long standing or continually recurring chronic dry squamous forms. Although the so-called Roentgen-hand, the well known chronic inflammation of the skin of some X-ray worker's hands, presents just the form described, and although Lassar-Berlin claims results from subjecting such troubles to high tubes, no followers in this line can be mentioned—either the results have been unsatisfactory ones or the patients were already frightened by the rays, or the Roentgen-hand occurs not as frequently as before.

Always in Roentgotherapy it must be kept in mind that not only different individuals react differently, but that some diseases, like favus and lupus, surprise us sometimes with an unusually quick irritation. Also patients with syphilitic history or alcoholic habits, people who are more than usually exposed to the bright sunlight, like sailors, are more inclined to stronger reaction.

Time does not permit me to go into the details of histological findings in cases treated with the rays, nor of the nature of the effect and its relation to the rays themselves, as interesting and important as they may be.

Concluding, therefore, I would like to recommend a more extensive use of this new therapeutic agent, but at the same time warn against a careless handling with dangerous overdosage and against leaving this two-edged sword to untrained hands.

DISCUSSION.

Dr. Albert Soiland, Los Angeles, said that the therapeutic field of usefulness of the X-ray was narrower than formerly, but none the less important; that the question of protection from untoward X-ray effects was of grave importance, especially to the operator; that he preferred the static machine and small induction coils, using hammer interrupters and storage batteries; that he covered nearly all the active surface of tube with 10 or 12 coats of white lead, leaving a window the size of a silver dollar through which the active rays emerged. This window could be covered with circles of soft lead foil, through the center of which the hole was made large enough to suit the individual lesion treated. These circles of lead were fastened over the tube with strips of adhesive plaster. These simple devices were working well in his practice.

Dr. Lehmann: Without taking up the question of protection, I only wish to state that the attempt of excluding unnecessary rays by painting or lead boxes, etc., has been made very often, but has been abandoned, as a thorough observation of the tube and its changeable qualities is rendered impossible thereby.

SYPHILITIC KERATODERMIA; REPORT OF A CASE SIMULATING ERYTHEMA KERATODES OR "BROOKES'S DISEASE."*

By ALEXANDER GARCEAU, M. D., San Francisco.

THE cutaneous disease known as erythema keratodes was first described by Brooke of Manchester, who reported 2 cases in 1892, and by him subjected to clinical research. Malcolm Morris described it as a rare form of sharply circumscribed erythema of the palms and soles, leading to over-growth of the horny tissue and accompanied by tenderness and edema, which interferes considerably with movement. Besides the lesions on the palms and soles, more or less erythematous nodules are seen on the back of the finger joints. (Malcolm Morris; Diseases of the Skin,

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

1903.) Debreuilh of France published one case the following year, to differentiate it from keratodemia erythematosa symmetrica (Besnier). All the cases reported by Brooke and Debreuilh occurred in women. These are the only cases that I know of, that have been published to date. I take the liberty today in presenting the following clinical case to your observation:

On March 9, 1904, F. K., male, 33 years old, born in Ireland, occupation teamster, applied for treatment at the department of diseases of the skin at the Emanuel Polyclinic of San Francisco. He gave the following history:

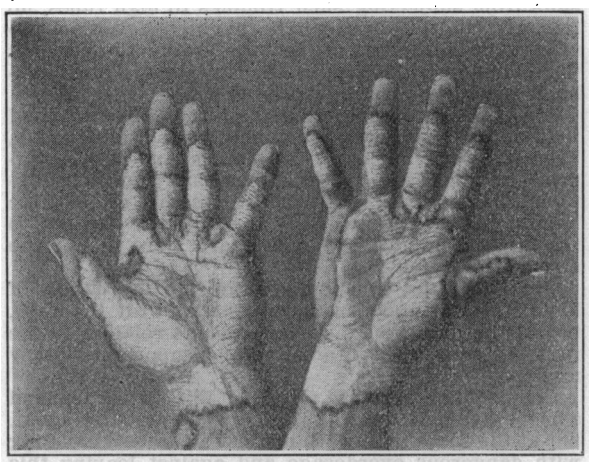

FIG. A.

Since he was 8 years of age, at intervals of 4 to 5 years, he has had recurrent attacks of erythema of both hands and feet, followed by accumulations of scales. Previous attacks all responded to local treatment, but present condition has resisted all treatment, and he has been incapacitated from work for the last 8 weeks. There first appeared redness and nodules about the finger joints, which spread in patches, and finally coalesced in a large diffused patch on the palms of the hands. The erythematous area of the left hand extended over the entire palmar surface from one inch to one inch and a half of the wrist well up, and covering the entire palm. Thence up to the first phalangeal articulation. The thick incrustation being nodulated at the phalangeal, the meta-carpo phalangeal articulation, and at the wrist. The area on the right hand was very nearly the same as the left, but not quite so extensive, there being islands of normal tissue transversing the erythematous patches upon the dorsal surfaces.

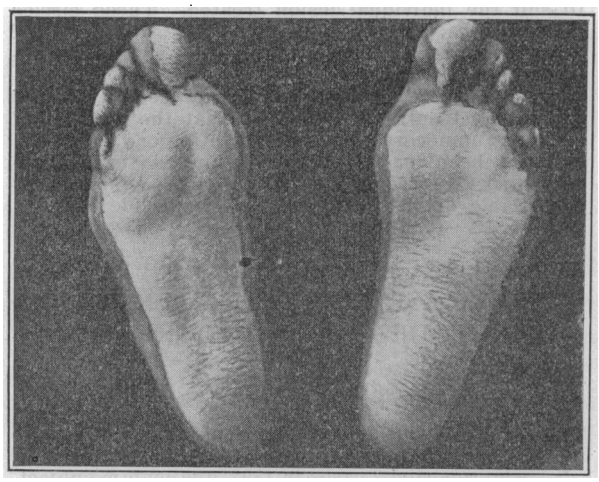

FIG. B.

The incrustation extended between the under and middle fingers on both the right and the left hand, and upon the middle phalangeal pairs of the ring and the middle fingers of the right hand, and the meta-carpo phalangeal articulation of the little finger of the left hand. The feet were attacked about the same time. He gave a history of soft chancre 3 years ago; says he never suffered any secondary symptoms or underwent any antisyphilitic treatment.

On examination, found cicatricial tissue of a hard sore of the prepuce. Has a congenital hypertrophied tongue. The whole surface of the hands and feet are edematous and swollen, and covered with a thick horny growth. The nails of the hands have a deathlike pallor. There is tenderness and pain on pressure. The general appearance of the patient is good. Physical examination reveals no other pathological changes, and his general health has not been impaired other than his incapacity to attend to manual labor, on account of the great tenderness of the hands and feet.

A few words regarding the histopathology of this case. A biopsy was made from the heel of the right foot, where there was a large patch of horny erythematous tissue, but no marked changes were shown other than such as are generally found in any other angiokeratomata. There was no marked alteration in the prickle layer, except a pronounced dilatation of the blood vessels.

McLeod of London, in his practical hand book, "Pathology of the Skin," says of hypokeratoses that in both the small papular variety and the patchy type, the initial change is a dilatation of the blood vessels, for the lesions commerce in simple erythematous macules and the hyperkeratosis follows as a result of the vascular stasis. But the reason why hyperkeratosis should occur here, while the more pronounced dilatation of the vessels in psoriasis is associated instead with defective cornification and the formation of scales, is yet to be explained. This leads me to believe that all hyperkeratoses with the exception of those due to arsenic (and these might be included) are due to heredity or trophic disturbances. Heredity no doubt plays an important part in the etiology of these symmetrical distrophies, and Lesser, Valario, Startin, Dupré, Ballantyne and many others have given us valuable information on the subject. Only recently Ehlers and Neumann observed a large number of cases in the Island of Meleda in Dalmatia, and helped to differentiate it from leprosy, which it was supposed to simulate.

Little is known of the etiology of this disease. Brooke treated both of his patients with local applications of salicylic acid, and ichthyol internally. They were clinical cases, and in his report he states that after a certain period had elapsed the patients failed to return. So I conclude that there were no etiological researches made into these cases. Dubreuilh based his treatment of the case reported by him upon the theory that it was an abnormal tertiary syphilid, and cured his patient completely in a few weeks with biniodid of mercury and iodid potassium internally, and by local application of salicylic acid.

I treated my patient with good results upon the hypothesis of syphilis, giving him every 64 hours an intermuscular injection of 1% solution sozoiodolate of mercury for 4 consecutive weeks, diminishing the interval at the end of that time, to once in 5 days until his discharge, April 16th, 1904. Locally I applied nothing. He then returned to his work without any further inconvenience. He presented himself at my office June 4th, 1904, and was apparently cured. I have not seen him since. In differentiation of this case, I wish to include a keratodermia of both hands and one foot:

On February 23, 1905, J. S., German, aged 56, no occupation, presented himself at my clinic. The following is the short clinical history:

Palms of both hands and palmar surfaces of fingers slightly hyperemic, and show an overgrowth of horny tissue. No edema and no tenderness. The only inconvenience he has is the frequent appearance of fissures. In the region of the arch of the right foot extending towards the inner maleolus is a large erythematous spot covered with the same horny tissue. He had suffered from this condition for 6 months. He is being treated with Pasta Lassar locally, and 15 grains of potassium iodid 3 times a day with satisfactory results.

In looking over the literature of the keratodermiæ of the hands and feet, I have come across some interesting symmetrical lesions which I have decided to include in my paper, to add, as it were, some historical interest to the etiology of symmetrical keratodermiæ.

Mr. George Pernet, pathologist of the hospital of diseases of the skin in London, published in the *British Medical Journal*, Jan. 5th, 1902, page 194, a case under the title of "Leprosy and Congenital Sym-

metrical Keratodermia." It is extremely interesting to note a similar condition, namely a hereditary palmar and plantar kertodermia, is frequent in the Island of Melanda (Dalmatia) and that such cases were first taken for leprosy.

Ehlers and Neumann, who investigated the matter, found that it was not leprosy but the symmetrical affection before mentioned. That such a confusion should have existed is another proof of the view that a variety of skin affections were in years gone by, included under leprosy. A symmetrical palmar erythema was described by Dr. Albert Chalmers, assistant colonial surgeon of the Gold Coast Colony, West Africa, in the *Lancet*, Dec., 1899, page 1514.

A symmetrical erythema affecting the ulnar side of both hands is extremely common among Europeans residing on the Gold Coast of West Africa, and though

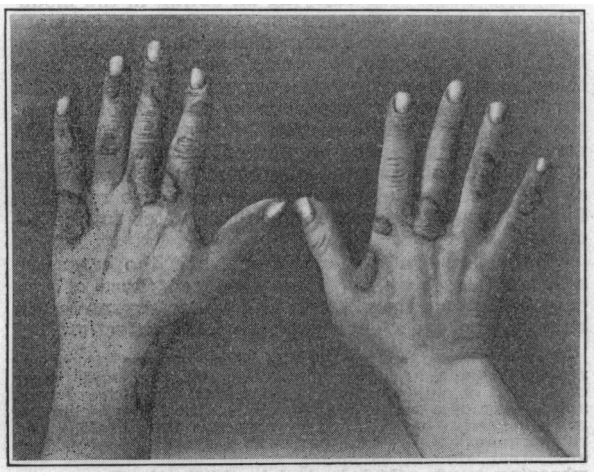

FIG. C.

a trivial matter, I have thought it worth while recording. The erythema is symmetrical affecting the ulnar side of the palm and hypothenar eminence. The color varies from a slight blush to a vivid scarlet. There is no evident abnormal thickening of the skin in this region, though small scales are frequently to be seen. The interest attaching itself to this erythema is that it is symmetrical in both hands, and persistent, and that a number of Europeans residing there have it. It is distinguished from the erythema keratodes described by Brooke in that it does not lead to an overgrowth of horny tissue, edema or tenderness. It is likewise distinct from the keratodermia erythematosa symmetrica of Besnier.

Besnier and Doyon truly say, you may pass 20 years of your medical life observing and collecting cases of erythema and each year will bring you forms which you have never before seen (Malcolm Morris, page 97). It is still an unsettled question beginning with erythema simplex and following in line with all other forms of erythema, whether they are due to an inhibition of the vasomotor nerves, or to other irritation to a point of exhaustion, and the production of an angio-neurosis. I am inclined to believe from the history and progress of my case that it was an indication of a disease both congenital and acquired. That the patient suffered no other symptoms of his acquired syphilis was probably due to a congenital acquisition, though he showed no other distrophy than an hypertrophied tongue. Of this I am certain, he responded immediately to an anti-syphilitic treatment, and was cured by mercurial injections.

I want to add here one word to the treatment of syphilids by intramuscular injection. It has been my good fortune recently to obtain the best results in my experience of the last 20 years, with the injections of sozoiodolate of mercury. I used the Crocker-Schwimmer modification in from ¼ to ½ grain every 48 hours, diminishing the intervals as best needed in the progress of the disease, and have had all the results of former uses of inunctions, pills, etc., without the inconvenience or disturbing accidents of the others. I have treated upward of 50 patients with different types of syphilis in the last year by this method with gratifying results and without accident. The salt is taken from the extra-pharmacopœia, and is the following: Di-iodo-paraphenolsulphonic acid containing 54% iodin, 7% sulphur, 20% phenol, has been combined with sodium, potassium, lead, mercury, etc., to form salts. The formula of this salt which I use now is identical with that used by Mr. Pernet of London, and is the following:

℞	Hydrarg. Soziodolate	gr. III
	Sodii Iodidi	gr. VI
	Aq. Ster. et distill.	ʒ IV

20 m = ¼ gr.

The injections should be made in a well defined line and with a long spinal trochared needle, and placed deep into the gluteal muscle.

Before filling, the tubes are heated to 200° C. and allowed to cool. The salts are separately heated to 100° C. The water is sterilized. After the tubes are filled and sealed, they are heated on 3 successive days for one hour at a time to 100° C.

E. Besnier of Paris gives us four classifications of symmetrical keratodermiæ:

(1.) The symmetrical keratodermia of the extremities, congenital or hereditary.

(2.) The ordinary symmetrical keratodermia of the extremities which develops itself in early childhood. Erythemas due to irritation. Probably due to some central neurosis. The disease is a permanent one, and is aggravated in winter and by manual work. The hyperkeratosis is scattered, like so many islands, on the palmar surface of all the fingers.

(3.) The keratodermia of the extremities in spots, which show themselves in isolated and multiple surfaces on the palms of the hands and soles of the feet, and which like the preceding ones, is angioneurotic, and of central origin.

(4.) The keratodermia of the extremities, which can appear at any age, due to traumatic pressure. These are always temporary and curable, and are generally observed on those who do manual labor, to which they are unaccustomed.

DISCUSSION.

Dr. M. Krotoszyner, San Francisco: I have used, in the treatment of syphilis in the last 5 or 6 years, sublimate injections in a large number of cases and am very pleased to say that the results obtained with this method are so good that I did not need to look for another mercury-salt to be administered by injection. I generally use a 1% solution of sublimate, and the injection made with this concentration is generally borne well by patients and the results obtained, even in stubborn cases, are good. I find it useful to change from a course of inunction to a course of injections of sublimate. If patients can not come to the office daily I administer sublimate injections in higher concentrations. A 2% solution is generally borne well by patients who have become accustomed to the slight inconvenience incidental to the 1% solution. I have not seen, in my large experience, an abscess or gangrene follow this method of treatment. Of course certain points in technic have to be observed in order to obtain uniformly good results. I can safely say that stomatitis occurs rarer with this method than with injections of insoluble salts of which I also have had a large experience. I am satisfied that, by injections of sublimate, manifestations of secondary syphilis are removed quicker than by any other method.

Dr. W. Lehmann, San Francisco: The case presented by Dr. Garceau seems to me, according to the description and the beautiful photographs, a typical one of late syphilis. In all cases of keratoma and keratoid affections we should consider the possibility

or syphilis, of psoriasis, and in many instances, of chronic eczema, before we suppose an idiopathic keratoma. No question that it is very often difficult to differenciate between these conditions, but history, clinical appearance and the course of the disease will finally reveal the correct diagnosis. Dr. Garceau surely has gone the right way to give a mercurial treatment, especially in applying injections. Just these keratoma-like forms of late syphilis are generally very resistent and need an effective treatment; on the other hand, injections are not only the most accurate, but the most efficient way to apply mercury. I have no experience with the new solution praised by Dr. Garceau, but it seems to me that the combination with iodin should rather be more painful than other mercury injections, because all iodin injections are well known as producing pains. Of course it depends to a large degree upon a proper technic to avoid pains and trouble.

Dr. A. Garceau, San Francisco: The cases which I have reported, present few, or, I might say, none of the manifestations of psoriasis or eczema, and as the photographs show, a typical picture of unmistakable *keratodermiae symmetricae*. The quick response to mercurial injections of one of the cases leaves no doubt of causation.

In the first class of Besiner belong the cases I have presented. One of acquired syphilis and also probably inherited, and the other is a latent mannifestation of syphilis alone. The use of sozoiodolate of mercury in late manifestations of syphilis, I prefer to all other salts, because it is slowly absorbed and meets with quick response. In my hands and with the correct technic I have looked upon it as superior to any other mercurial injections that I have ever used, and I think I have tried them all. A look at the formula will convince you that it is the ideal mercuric preparation of the present day, and I have found it in all my cases all that I have claimed for it in this paper, safe, almost painless and producing quick results. There is an individualism in the treatment of syphilis which one must not overlook, and one which requires study and care in the selection of remedies at different stages of the disease. Experience with this salt and its results have given me full confidence of its great merit. It must be properly prepared as I have mentioned, and properly administered as I have advised, to meet with the approval of others.

A CASE OF POISONING FROM CEANOTHUS VELUTINUS, RESEMBLING RHUS POISONING.*

By R. F. ROONEY, M. D., Auburn.

Ceanothus velutinus Douglas. This shrub is distributed from the Columbia river to Central California, Nevada, Colorado and the Dakotas. The typical form is a large shrub with twigs from olive to brown, leaves ample, 3 nerved, broadly elliptical with somewhat cordate base to the lateral nerves, thence cuneate, very obtuse, dark green, glabrose, and usually heavily varnished above, minutely canescent beneath, 2 to 3 inches long, obtuse, the margin closely dentate-serrate; peduncles somewhat angled, minutely and rather sparsely puberulent; inflorescence ample, compound; flowers white; capsules subglobose, deeply lobed at the top, smooth or minutely roughened, nearly crestless. The whole plant is strongly aromatic scented. Family, Rhamnaceæ, or Buckhorn.

The variety *laevigatus* is the one most common to California and Southern Oregon. It becomes a small tree, with smooth leaves, lighter in color on the lower surface; inflorescence more ample and compound; capsules globose, larger, less lobed, smoother, somewhat crested. It is known in some localities as "Honey-dew," on account of the varnished appearance of the leaves; in others as "Buck-brush" or "Snow-brush." (This description was kindly furnished me by Miss Alice Eastwood of the California Academy of Sciences.)

This is a common shrub throughout the mountains of Northern California and Southern Oregon, and in places constitutes nearly the sole vegetation, covering acres of mountainside. It seems to thrive best at an elevation of 2,000 to 5,000 feet, and attains a luxurious growth at the latter altitude. In the Klamath Forest Reservation, where the following case was noted, it is everywhere plentiful, and forms almost impenetrable thickets acres in extent. It is not at all an attractive looking shrub, save for the distinction of its brightly varnished leaves.

The following observations were made in the latter part of August and the first days of September, 1904, while the writer was enjoying an outing in the mountains of Southern Oregon, on the shore of Klamath lake. The case here reported resembled one of violent Rhus poisoning, but that plant is never seen there, while "Honeydew" is everywhere present. This shrub is considered innocuous by the inhabitants of the localities in which it grows, and after inquiries in many directions, including the office of investigation of poisonous plants in the Department of Agriculture at Washington, and finding no similar case recorded, I felt warranted in presenting these notes to this society.

The violence of the symptoms, and the extensive areas of the body involved, exceeded those of any case of Rhus poisoning coming under my notice in many years' experience with the latter affection.

History: Male; white; born in England; age, 42 years; red-brown hair, and fair complexion; married, and father of 3 healthy children. Occupation, farmer, stage driver, and keeper of a resort for sportsmen, the latter being his present occupation. Has always been a very healthy and robust man. Never had any sexual or skin disease, nor any other ailment excepting scarlet fever, measles and whooping cough, which he had in childhood. During the past 3 summers, while driving a stage over the Cascade mountains, has had several attacks similar to the present one, but none so severe. Is certain that driving through a country covered more or less thickly with the plant in question, was the cause of all his previous attacks. The present one is attributed by him to driving a cow and calf through the forest, a distance of 5 miles, 6 days previously, and becoming very much heated in pursuit of the perverse animals, who led him through many thickets of the plant he had learned to dread.

Status Praesens: Pulse, 90; temperature, 102.5°; respiration, 20; tongue thickly coated with a white fur; nausea and complete anorexia; severe headache; constipation; great restlessness; feeling of great prostration, probably due to loss of sleep caused by the intolerable burning and itching of the affected areas. The face and neck, the front of the body down to a line midway between the umbilicus and pubes, the hands and forearms, and the legs from the ankles to the knees, were of a deep vivid red, and those parts were much thickened and swollen into rugosities. Close inspection showed a fine vesication, resembling that seen in Rhus poisoning, but no exudation, saving where his fingernails had been at work. The features were much distorted by the swelling, and the eyes almost completely closed. There was considerable delirium at night, and more or less during the day.

Being 45 miles from a drug store, and having no suitable remedies at hand, I gave him a hypodermatic injection of morphine, and a saline cathartic which I had with me, and ordered the constant application of cloths moistened in a solution of bicarbonate of soda, such as could be procured from the culinary department of the establishment. This relieved the acute suffering, and procured sleep, and for the following 10 days the patient slowly improved, and the skin began to peel off in scales and flakes, accompanied with constant itching and discomfort. At this period, the drainage from the kitchen having become deranged, he went out and assumed direction of repairs, and went into the forest to procure some suitable timbers, where he again came in contact with the cause of his malady, and when I left the locality, 3 days later, he was in bed with a fresh attack, confined to the exposed parts of the body.

There could be no question but the acute dermatitis was caused by this hitherto-considered innocuous shrub. It was probably the pollen of the plant that produced the dermatitis in this man, as it was the exposed surfaces that were affected. In the first instance, while chasing through the brush after the calf, and becoming greatly heated by his exertions,

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.